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Docket Nos.: 52-025
52-026

ND-10-0613

U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application
Supplemental Response 2 to Request for Additional Information Letter No. 029

Ladies and Gentlemen:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 10 CFR Part 52. During the NRC's detailed review of this application, the NRC identified a need for additional emergency planning information required to complete their review of the COL application's Final Safety Analysis Report (FSAR) Section 13.3, "Emergency Planning." By letter dated March 6, 2009, the NRC provided SNC with Request for Additional Information (RAI) Letter No. 029 concerning this information need. This RAI letter contained four RAI questions numbered 13.03-1 through 13.03-4. By letter dated April 3, 2009, SNC provided a response to these RAIs. SNC supplemented its response to these RAIs in a letter dated June 18, 2009. Based on NRC feedback provided in a phone call on February 24, 2010, SNC is providing a revision to its response to RAI 13.03-3. The enclosure to this letter provides SNC's revised response to this RAI. Please note that the application revisions shown in the enclosure have previously been incorporated in the COL application. Only the changes shown for COL application Part 10 are to be incorporated in a future application update.

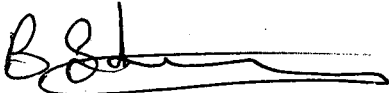
If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

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NRD

Mr. B. L. (Pete) Ivey states he is a Vice President for Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



Brian L. (Pete) Ivey

Sworn to and subscribed before me this 28th day of April, 2010

Notary Public: Dana M. Williams

My commission expires: 12/29/2010



BLI/BJS/dmw

Enclosure: Supplemental Response 2 to NRC RAI Letter No. 029 on the VEGP Units 3 and 4 COL Application Involving Emergency Planning

cc: Southern Nuclear Operating Company

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Document Services RTYPE: AR01.1053
File AR.01.02.06

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Southern Nuclear Operating Company

ND-10-0613

Enclosure

Supplemental Response 2 to NRC RAI Letter No. 029

on the

VEGP Units 3 and 4 COL Application

Involving

Emergency Planning

FSAR Section 13.3, Emergency Planning

eRAI Tracking No. 2087

NRC RAI Number 13.03-3:

[Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(4), Section IV.B of Appendix E to 10 CFR Part 50]

COL application Part 2 (FSAR) Section 13.3.8, "ESP COL ACTION ITEMS," addresses emergency action levels (EALs) in relation to VEGP ESP COL 13.3-1 and 13.3-2. EALs are further discussed in Section D, "Emergency Classification System," of COL application Part 5.

The initial EALs, which are required by 10 CFR 50.47(b)(4) and Section IV.B of Appendix E to 10 CFR Part 50, must be approved by the NRC. The Vogtle combined license (COL) application does not fully address certain aspects of the required EAL scheme. This is because various equipment set points and other information cannot be determined until the as-built information is available; e.g., head corrections, radiation shine, final technical specifications, and equipment calculations and tolerances. The NRC has been evaluating possible options to ensure applicants address the regulations and provide the following:

Option 1 – Submit an entire EAL scheme, which contains all site-specific information, including set points. Until this information is finalized, EALs would remain an open item.

Option 2 – Submit emergency plan Section D, "Emergency Classification System," which addresses the four critical elements of an EAL scheme (listed below). The NRC will determine the acceptability of the EAL scheme.

- Critical Element 1 – Applicant proposes an overview of its emergency action level scheme including defining the four emergency classification levels (i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency), as stated in NEI 99-01, Revision 5, with a general list of licensee actions at each emergency classification level.
- Critical Element 2 – Applicant proposes to develop the remainder of its EAL scheme by using a specified NRC endorsed guidance document. In the development of its EALs, the proposed EALs should be developed with few or no deviations or differences, other than those attributable to the specific reactor design. NEI 07-01, if endorsed, will be applicable to the AP1000 and ESBWR (passive) reactor designs, and NEI 99-01 is applicable to all (non-passive) reactor designs. If applicable, EALs related to digital instrumentation and control must be included. The NRC must find in the Safety Evaluation Report that this approach is acceptable for each site.
- Critical Element 3 – Applicant proposes a License Condition (LC) that the applicant will create a fully developed set of EALs in accordance with the specified guidance document. These fully developed EALs must be submitted to the NRC for confirmation at least 180 days prior to fuel load.
- Critical Element 4 – The EALs must be kept in a document controlled by 10 CFR 50.54(q), such as the emergency plan; or a lower tier document, such as the Emergency Plan Implementing Procedures.

Please review the two options provided above, identify which option will be chosen, and provide the detailed EAL information in support of the chosen option. Please identify which option you intend to pursue.

SNC Response:

SNC commits to Option 2. SNC's approach to each of the Critical Elements discussed in the NRC's Request for Additional Information is described below:

Critical Element 1 – Emergency Plan Subsection D.1, Classification of Emergencies, provides an overview defining the four emergency classification levels: Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency as defined in NEI 99-01, Rev. 5. Subsection D.1 also provides a general list of applicant actions at each emergency classification level.

Critical Element 2 – SNC will develop the remainder of the site-specific EAL scheme using the NRC-endorsed version of NEI 07-01, Rev. 0. The fully developed site-specific EAL scheme will be included in the Emergency Plan. Accordingly, the current EAL scheme will be removed from Annex V2, Section D of the Emergency Plan in a future revision of the COLA. In addition, Section D of the Emergency Plan will be revised to clarify the basis for the EAL scheme.

Critical Element 3 – SNC proposes the following License Condition related to the creation of a fully developed set of site-specific EALs in accordance with the guidance document discussed above:

PROPOSED LICENSE CONDITION:

"The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07-01, Revision 0 with no deviations. The EALs shall have been discussed and agreed upon with State and local officials. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load."

This license condition will be added to Part 10 of the COL Application, as described in the Application Revisions section for this response.

Critical Element 4 – As discussed in Critical Element 2, the fully developed site-specific EAL scheme will be incorporated into a future revision to the Emergency Plan. Accordingly, future changes to the EAL scheme will require an evaluation under 10 CFR 50.54(q) to determine if the changes will reduce the effectiveness of the Emergency Plan.

Associated VEGP COLA Application Revisions:

The following changes will be made in a future revision to the VEGP Units 3 and 4 COLA:

- Add the following supplements after the first paragraph of Part 5:

"Revise the last sentence of the fourth paragraph of page x of the Preface to read:

'It is based on meeting the intent of the guidance contained in NUREG 0654, Revision 1 with the exception of emergency action levels which are based on Nuclear Energy Institute (NEI) 99-01, Revision 4, "Methodology for Development of Emergency Action Levels (EAL)," for Units 1 and 2. EALs for Units 3 and 4 will be based on the NRC

endorsed version of NEI 07-01, Revision 0, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors.'

Revise the first sentence of the third paragraph of Subsection D.1 of the Base Plan to read:

'The SNC classification scheme for Units 1 and 2 is based on Nuclear Energy Institute (NEI) 99-01, Revision 4, "Methodology for Development of Emergency Action Levels (EAL)," January 2003 endorsed by Regulatory Guide 1.101, Revision 4, Emergency Planning and Preparedness for Nuclear Power Reactors. The classification scheme for Units 3 and 4 will be based on the NRC endorsed version of NEI 07-01, Revision 0, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors.'

Revise the second sentence of the second paragraph of Preface page V2-vii of Annex V2 to read:

'It is based on the guidance contained in NUREG 0654, Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, with the exception of emergency action levels which will be based on the NRC endorsed version of Nuclear Energy Institute (NEI) Guideline NEI 07-01, Revision 0, Methodology for Development of Emergency Action Levels Advanced Passive Light Water Reactors, ~~for Units 3 and 4.~~'

Revise Subsection V2D.2 of Annex V2 to read:

'The Initiating Condition Matrix for Modes 1, 2, 3, and 4 for Units 3 and 4 will be shown in Table Annex V2 D-1, and the Initiating Condition Matrix for Modes 5, 6, and de-fueled will be shown in Table Annex V2 D-2.'

Add a Subsection V2D.3, Emergency Action Level Technical Basis, to page V2D-1 of Annex V2 which reads:

'[Reserved for EAL Technical Basis]'

Delete the content of Tables V2D.2-1, Hot Initiating Conditions Matrix, Modes 1, 2, 3, and 4 and V2D.2-1, Cold Initiating Conditions Matrix, Modes 5, 6 and De-fueled, found on pages V2D-2 and 3, respectively, and replace with:

'[Reserved for Initiating Condition Matrix]''

- In response to AP1000 R-COLA (BLN) RAI 09.05.01-01, the R-COL and S-COL Applicants have removed the License Condition associated with the fire protection program. Accordingly, COLA Part 10, Proposed License Conditions (Including ITAAC), Proposed License Condition 4, will be revised to read:

"4. Emergency Planning Actions:

Because various equipment set points and other information cannot be determined until as-built information is available, the COL Application does not fully address certain

aspects of the EAL scheme. Thus, COL applicants using EAL schemes in accordance with NEI 07-01 are proposing the following license condition.

PROPOSED LICENSE CONDITION:

The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07-01, Revision 0 with no deviations. The EALs shall have been discussed and agreed upon with State and local officials. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load."